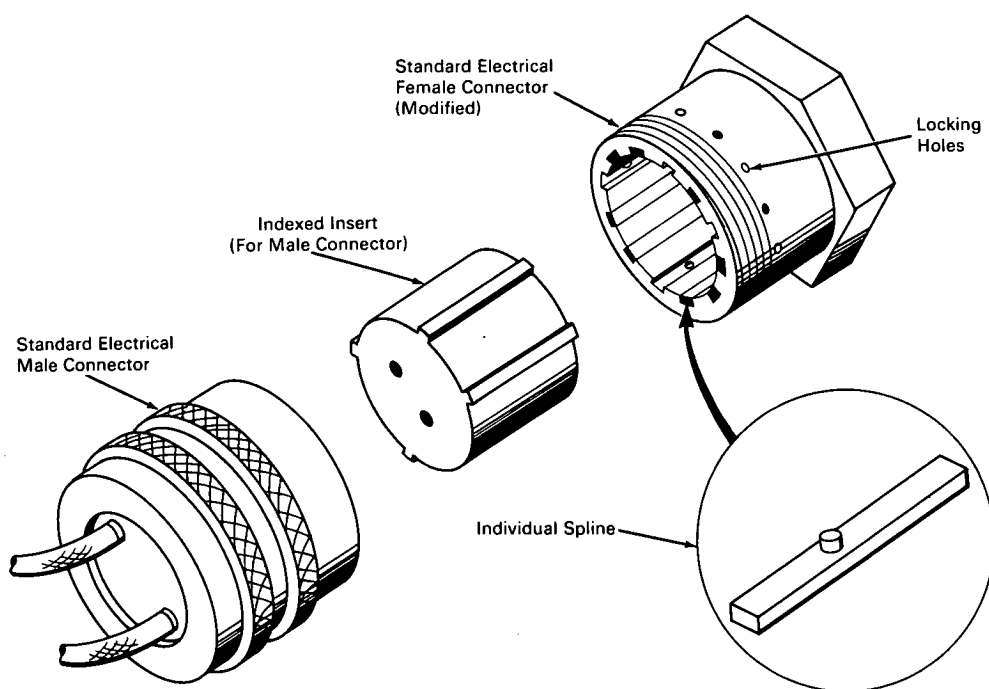


NASA TECH BRIEF



NASA Tech Briefs are issued by the Technology Utilization Division to summarize specific technical innovations derived from the space program. Copies are available to the public from the Clearinghouse for Federal Scientific and Technical Information, Springfield, Virginia, 22151.

Indexing Device Ensures Proper Mating of Electrical Connectors



The problem: To eliminate the possibility of incorrectly mating electrical connectors. The mating of male and female connectors to provide the correct matching of connections for various electrical functions is particularly difficult in locations where visibility is obscured.

The solution: Use indexing splines with modified standard male and female connectors.

How it's done: The female connector is made with uniform grooves extending longitudinally around its inner periphery. During manufacture of the female connectors the indexing splines are press-fitted into each of the connector grooves. One or more of these

splines can be easily removed with a punch through the locking holes. Removal of the appropriate splines provides a predetermined pattern of open grooves whereby only mating male connectors having a fixed set of splines arranged in the predetermined pattern can be coupled to the female connectors.

Notes:

1. Both male and female connectors with the indexing splines can be inexpensively mass-produced by standard procedures.
2. This innovation makes it unnecessary to stock large quantities of differently indexed connectors, since male and female connectors from a single

(continued overleaf)

stock can be indexed as desired at the time of installation.

3. Inquiries concerning this invention may be directed to:

Technology Utilization Officer
Manned Spacecraft Center
P. O. Box 1537
Houston, Texas, 77001
Reference: B65-10263

Patent status: NASA encourages the immediate commercial use of this invention. It is owned by NASA, and a patent application has been filed. When patented, royalty-free nonexclusive licenses for its commercial use will be available. Inquiries concerning license rights should be made to NASA, Code AGP, Washington, D.C., 20546.

Source: William H. Simmons and
Lyle M. Jenkins
(MSC-155)